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10/694,088	10/28/2003	Mitsuru Iwasaki	2003-1505A	3480
513 7590 07/17/2007 WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			EXAMINER COOLMAN, VAUGHN	
			ART UNIT 3618	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

JUL 17 2007

GROUP 3600

Application Number: 10/694,088
Filing Date: October 28, 2003
Appellant(s): IWASAKI ET AL.

W. Douglas Hahm
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 05/23/2007 appealing from the Office action mailed 07/24/2006.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,756,279	TEMMESEFELD	07-1988
5,090,270	SUZUKI	02-1992
4,539,943	TSUCHIKAWA	09-1985

(9) Grounds of Rejection

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The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Temmesfeld (US 4,756,279) in view of Suzuki (US 5,090,270).

[claim 1] Temmesfeld teaches an automotive heat exchanging system including: a heat exchanger (3) mounted in front of an engine (1) and transmission (not shown) supplied with a coolant (see Column 3), an electric fan (6) which is located in a front of vehicle and ensures airflow through heat exchanger (3); a shroud (9, 10) attached to and covering peripheral portions of said electric fan (6) and the heat exchanger (3) to form an air passage inside of said shroud (9,10) for allowing airflow through said heat exchanger (3) to flow toward said automatic transmission', and a shutter (4,5) disposed in and attached at a periphery thereof to said shroud to open and close said air passage; a controller which controls opening and closing of the shutter (4,5) based on engine temperature.

Temmesfeld does not teach an oil temperature sensor specifically. Suzuki teaches a control system including for an automatic transmission including, an engine, a controller (23) wherein, an oil temperature sensor (23) sensing a temperature of oil in said automatic transmission and outputs an oil temperature signal; a controller which controls opening and closing of a by-pass via a solenoid (19) based on the oil temperature signal from said oil temperature sensor so as to indirectly control the temperature of the oil in said automatic transmission. It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify the invention taught by Temmesfeld with controller responsive to an oil temperature sensor, since the modification would provide the advantage of, as discussed by Suzuki, enhancing the engagement characteristics of transmission friction elements due to the tendency of said elements to vary in efficiency in relation to the temperature of the transmission oil.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Temmesfeld (US 4,756,279) in view of Suzuki (US 5,090,270) as applied to claim 1 above, and further in view of Nixon (US 4,476,820).

[claim 4] Temmesfeld (US 4,756,279) in view of Suzuki teaches all aspects of the claimed invention as discussed above for claim 1, including the electric fan disposed behind the radiator, except for the shutter being located behind the electric fan.

Nixon teaches an engine compartment including an electric fan, radiator and shroud arrangement, wherein a shutter (41) is disposed directly in front of the engine. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter position of the invention taught by Temmesfeld modified by Suzuki, such that the shutter is disposed directly in front of the engine, to maintain a minimum temperature and enhance the cooling efficiency of the radiator.

Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Temmesfeld (US 4,756,279) in view of Suzuki (US 5,090,270) as applied to claim 1 above, and further in view of Tsuchikawa et al (US 4,539,943).

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[claims 17 and 18] Temmesfeld in view of Suzuki teaches all aspects of the claimed invention as discussed above in re claim 1, except the heat exchanger including a condenser and radiator at the rear of the condenser.

Tsuchikawa et al teaches an engine compartment including: a heat exchanger comprising a radiator (2) at the rear of a condenser (3) and a shroud (4) having sidewalls, see Figure 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a radiator/condenser arrangement as well as a shroud having side walls to further deflect air flow, thereby improving heat dissipation for the vehicle.

(10) Response to Argument

Regarding Claim 1 - Appellant argues that a combination of Temmesfeld and Suzuki does not teach or suggest all of the claim limitations. Specifically, appellant alleges that the combination does not teach or suggest, “a controller for controlling opening and closing of said shutter based on the automatic transmission oil temperature signal received from said automatic transmission oil temperature sensor so as to control the temperature of the oil in said automatic transmission (Claim 1)”. However, in this argument Appellant seems to have misconstrued the modification made in the rejection.

To render a claim obvious under 35 CFR 103, the combination of the references must teach each and every limitation of the claim. Contrary to Appellant’s assertion the combination made in the Final Rejection, does disclose each and every limitation recited above. As set forth in the rejection above, the Temmesfeld discloses a shutter (4, 5) for controlling cooling of an automatic transmission. However the opening and closing of the shutter is based on an oil temperature sensor (column 3, lines 45-50) instead of an automatic transmission oil temperature

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sensor. Also, Temmesfeld does disclose opening and closing of the shutter based on a reading from the oil temperature sensor, it does not specifically disclose using a controller based on the automatic transmission oil sensor reading. Suzuki was cited to show that it is known in the art to use the temperature of an automatic transmission oil sensor (23; column 3, line 56) to control cooling in a vehicle. Suzuki discloses an automatic transmission oil sensor and a controller using the reading of the sensor to control a system. The modification made to the device in Temmesfeld was to open and close the sensor using a controller, which used the readings from an automatic transmission oil sensor. The motivation for the combination came from the teachings of Suzuki which teaches that the efficiency of engagement characteristics of transmission friction elements due to vary with the temperature of automatic transmission oil combined with the teachings of Temmesfeld that state the curtain is capable of being “automatically controllable opening” based on “a predetermined operating condition” such as “high values of a component temperature” or “coolant temperature” (column 3, lines 45-50).

Appellant seems to argue that the solenoid valve of Suzuki is required for the combination. On the contrary, the combination only requires the teaching of an automatic transmission oil temperature sensor and the associated features of the controller of Suzuki. The combination does not require the details of Suzuki’s system that is being controlled by the controller that appellant argues. The appellant’s description of the Suzuki method for controlling automatic transmission oil viscosity (and temperature as the two material properties are inherently related) utilizing the solenoid valve arrangement does not obscure the fact that the combination described above meets all requirements set forth by 35 U.S.C. 103(a) and the

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MPEP. The combination as made in the rejection matches the scope of the claims and *explicitly teaches* all of the limitations of the claim.

In response to appellant's arguments regarding the functional language in claim 1, it is apparent that one of ordinary skill in the art at the time would know that the physical relationship of wires and other electrical connections between the elements of the combination would obviously be required for a reasonable expectation of success. A worker of ordinary intelligence in the related vehicle art would realize that setting an oil temperature sensor next to a shutter will not garner any results, just as controlling the shutter arbitrarily will not provide beneficial results (except by happenstance). Appellant argues that the controller must be able to analyze the oil temperature signal, and Temmesfeld states that the shutter is automatically controlled based on the value of a predetermined operating condition. As such, some analysis is obviously taking place in the control system of Temmesfeld. Suzuki explicitly teaches the controller being capable of an analysis of the oil temperature sensor signal and a resultant mechanical action based upon the results of the analysis (as simple as an up-down, open-close, or on-off action). Examiner contends that one of ordinary skill would have more than enough teachings and suggestions from the cited references and the prior art as a whole to construct the alleged physical relationships and features that appellant believes to be entitled to patentable weight.

Regarding Claim 18 – Appellant points out that Examiner did not address how any of the applied references teach the opening in the sidewall as recited in claim 18. The appeal brief is the first time that appellant has voiced the lack of description of the elements of claim 18. Examiner notes the disclosure and figures of the base reference – Temmesfeld. Temmesfeld shows in FIG 1 the shroud (9, 10) having a front end (towards the front of the vehicle), a rear end

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(towards the fan), sidewalls connecting said front end and said rear end (column 3, lines 16-19), and an opening (14) formed in said sidewalls to allow air to flow out of said air passage inside of said shroud (column 3, lines 37-43). The disclosure explicitly shows the argued features, contrary to appellant's assertions. Examiner notes that Temmesfeld even shows airflow arrows in FIG 1 indicating the argued feature.

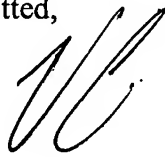
(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Vaughn Coolman



Conferees:

Christopher Ellis



Meredith Petravick

